

A.3.13 AOC 32

Description

Tank Basin 16 was identified as a new AOC in correspondence from Chevron to EPA, dated November 21, 2000. AOC 32 was identified as a potential source area based on information contained in the inspection records for AST 16. The inspection records indicate that in November 1968, the bottom shell plate ruptured and approximately seven to eight feet of No. 6 oil leaked out of AST 16 into the tank basin.

AOC 32 is rectangular in shape and measures approximately 780 feet in perimeter. This AOC encompasses approximately 50,000 square feet. AST 16 is constructed of welded steel rings with a steel bottom plate. AST 16 has a diameter of 120 feet, a height of 48 feet, and a capacity of 94,000 Bbls. Based on Refinery files, aerial photographs and discussions with facility personnel, AST 16 and its associated tank basin were constructed in 1945. The tank is currently used to store asphalt, but it has been used to store crude oil, No. 2 oil, No. 4 oil and No.6 oil in the past. Figure A.3.13 depicts the location of Tank Basin 16.

Soil

Three borings S0749, S0750 (MW-110), and S0751 (MW-111) were installed around Tank 16 to determine whether a release has occurred. The soil samples from each boring were analyzed for TCL VOCs and SVOCs and TAL metals. In addition, one soil sample was analyzed for physical characteristics¹ and two samples were also submitted for SPLP analysis.

As summarized on Table A.3.12, no COCs were detected in excess of the applicable soil delineation criteria, other than naturally-occurring iron and manganese.

The following table summarizes the number of samples where the delineation criteria were exceeded:

Constituents of Concern	Surface Soils (0 to 2 ft)	Fill Material (>2 ft)	Native Soils	Total
Benzene	0/3	0/2	0/4	0/9
Other VOCs	0/3	0/2	0/4	0/9
Benzo(a)pyrene	0/3	0/2	0/4	0/9
Other PAHs	0/3	0/2	0/4	0/9
TAL metals ^a	0/3	0/3	0/4	0/10

^aTotals do not include naturally-occurring metal compounds in excess of the delineation criteria (Al, Ca, Fe, Mg, Mn, K and Na).

¹Physical characteristics specified in Appendix A, Task IV of Module III of the HWSA Permit included saturated and unsaturated permeability tests, moisture content, relative permeability, bulk density, porosity, soil absorptive capacity, CEC, TOC, pH, Eh and grain size distribution.

Surface Soils

Some asphalt fragments were observed in the surface soils at S0750. There were no exceedances of any COCs in any of the three surface soil samples collected from AOC 32.

Fill Materials (>2 feet bgs)

No staining, odors or other evidence of significant petroleum impacts were noted in any the subsurface fill samples at AOC 32. The fill layer is generally between zero and 12 feet thick at AOC 32. There were no exceedances of any COCs in the subsurface fill samples from AOC 32.

Native Material

Native material consisting primarily of sand, silt and clay underlies the fill layer at depths ranging from approximately zero to 11 feet bgs. No constituents were detected above the applicable soil delineation criteria in any of the three soil samples collected from the native material, with the exception of naturally-occurring iron and manganese.

No metals were detected above the applicable SPLP criteria in the two SPLP samples. Therefore, the soils are not a source of metal impacts to groundwater.

Groundwater

Two monitoring wells (MW-111 and MW-110) were installed during the Full RFI at AOC 22. Nickel (190 µg/L, cobalt (224 µg/L), and thallium (11.2J µg/L) were detected above the applicable groundwater delineation criteria in the October 2002 groundwater sample from MW-111. Lead (11.3J µg/L) was above the applicable groundwater delineation criteria in the October 2002 groundwater sample from MW-110, but it was not detected in the March 2003 groundwater sample from MW-110. The groundwater analytical data for AOC 32 is summarized in Table A.3.12. Section 8 of the RFI report discusses the groundwater impacts in the vicinity of AOC 32.

Summary

There were no exceedances of the applicable soil delineation criteria in any of the soil samples from AOC 32, except for naturally-occurring iron and manganese, and no metals were detected above the applicable SPLP criteria in either of the two SPLP samples from this AOC. Therefore, soils are not a source of metals impacts that have been observed in the groundwater sample from MW-111. Therefore, Chevron recommends no further action for AOC 32. However, potentially-impacted groundwater in the vicinity of AOC 32 will be included in the site-wide groundwater evaluation portion of the CMS.